

AMENDMENTS TO THE CLAIMS

Claim 1 (Currently Amended): An object-oriented virtual machine interface for a reconfigurable wireless network communication apparatus;

 said reconfigurable wireless network communication apparatus comprising a plurality of kernels, wherein each kernel is designed to perform a specific processing function; and

 said object-oriented virtual machine interface comprising a plurality of software objects including a first subset of said software objects, each software object in said first subset of said software objects associated with a different kernel in said plurality of kernels so that a change to a software object in said first subset of said software objects results in a change in said kernel associated with said software object.

Claim 2 (Original): The object-oriented virtual machine interface of claim 1 wherein said plurality of software objects includes a second subset of said software objects, each software object in said second subset of said software objects having at least one adjustable attribute.

Claim 3 (Previously Presented): The object-oriented virtual machine interface of claim 2 wherein said at least one adjustable attribute is a static or dynamic attribute.

Claim 4 (Original): The object-oriented virtual machine interface of claim 1 wherein a kernel in said plurality of kernels is configurable in accordance with a communication protocol.

a searcher object;

a code generation unit object;

a finger object;

an uplink object; and

a downlink object.

Claim 40 (Currently Amended): The A computer program product for a reconfigurable object-oriented apparatus comprising a plurality of kernels and an interconnect structure for interconnecting said plurality of kernels, the computer program product comprising a computer readable storage medium and a computer program mechanism embedded therein, the computer program mechanism comprising:

instructions for instantiating a plurality of software objects, each software object in said plurality of software objects corresponding to a different kernel in said plurality of kernels such that a change to said software object results in a change in a state of said corresponding different kernel;

instructions for assigning an attribute value to a first software object in said plurality of objects according to a communication protocol; and

issuing machine-readable instructions to configure the kernel associated with said first software object in accordance with said attribute value, of claim 39

wherein said plurality of software objects comprise a searcher object, a code generation unit object, a finger object, an uplink object, and a downlink object, and

wherein said plurality of kernels comprise a searcher kernel, a code generation unit kernel, a finger kernel, an uplink kernel and a downlink kernel respectively corresponding to said searcher

object, said code generation unit object, said finger object, said uplink object and said downlink object, respectively.

Claim 41 (Original): A computer program product of claim 39 wherein said communication protocol is CDMA.

Claim 42 (Withdrawn): An apparatus to facilitate wireless communication, comprising a hardware reconfigurable and software programmable processor responsive to a predetermined virtual machine interface.

Claim 43 (Currently Amended): A method for reconfiguring a wireless network communication apparatus having a plurality of kernels, the method comprising the steps of:

parsing an application program that designates a communication protocol;

producing machine readable data capable of reconfiguring said reconfigurable wireless network communication apparatus in accordance with said communication protocol; and

providing an object-oriented virtual machine interface having a plurality of software objects, each software object in said plurality of software objects associated with a different kernel in said plurality of kernels so that a change to a software object in said plurality of software objects results in a change in said kernel associated with said software object,

wherein each kernel is designed to perform a specific processing function, and

wherein said machine readable data includes a first software object selected from said plurality of software objects.

Claim 44 (Canceled)

Claim 45 (Previously Presented): The method of claim 43 wherein said first software object is a function or procedure.

Claim 46 (Currently Amended): A computer program product for use in conjunction with a reconfigurable wireless network communication apparatus having a plurality of kernels, the computer program product comprising a computer readable storage medium and a computer program mechanism embedded therein, the computer program mechanism comprising:

a program module for reconfiguring said reconfigurable wireless network communication apparatus comprising:

instructions for parsing an application program that designates a communication protocol; and

instructions for producing machine readable data capable of reconfiguring said reconfigurable network communication apparatus in accordance with said communication protocol;

the computer program product further comprising an object-oriented virtual machine module comprising a plurality of software objects, each software object in said plurality of software objects associated with a different kernel in said plurality of kernels so that a change to a software object in said plurality of software objects results in a change in said kernel associated with said software object,

wherein each kernel is designed to perform a specific processing function, and

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Claim 67 (New): The computer program product of claim 46, wherein the software objects may be updated according to the states of their associated kernels dynamically.

Claim 68 (New): The object-oriented virtual machine interface of claim 1, wherein a change in a kernel of said plurality of kernels results in a change in the software object associated with that kernel.

Claim 69 (New): The object-oriented reconfigurable system of claim 13, wherein a change in a kernel of said plurality of kernels results in a change in the software object associated with that kernel.

Claim 70 (New): The method of claim 29, further comprising the step of updating an attribute value of a software object in said plurality of software objects in accordance with a change in a state of the kernel associated with that software object.

Claim 71 (New): The computer program product of claim 37, further comprising:

instructions for updating an attribute value of a software object of said plurality of software objects in accordance with a change in a state of the kernel associated with that software object; and

instructions for updating a software object of said plurality of software objects in accordance with a change in the state of the kernel associated with that software object.

